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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,758	01/15/2004	Luc Van Autryve	AMAT/8764.P1/FEP/OXD/JW	6404
44257 7590 02/28/2007 PATTERSON & SHERIDAN, LLP 3040 POST OAK BOULEVARD, SUITE 1500 HOUSTON, TX 77056			EXAMINER LEE, HSIEN MING	
			ART UNIT 2823	PAPER NUMBER
			MAIL DATE 02/28/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	Application No.	Applicant(s)	
	10/758,758	AUTRYVE ET AL.	
	Examiner	Art Unit	
	Hsien-ming Lee	2823	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 15 February 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☒ Applicant's reply has overcome the following rejection(s): overcome 103(a) rejection against claims 1-5.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: 1-18, 32, 33, 35 and 36.  
Claim(s) objected to: 38-41 and 44-46.  
Claim(s) rejected: 37, 42 and 43.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_  
13. ☐ Other: \_\_\_\_\_.

**HSIEN-MING LEE**  
**PRIMARY EXAMINER**

Hsien-ming Lee  
Primary Examiner  
Art Unit: 2823

*[Signature]*  
2/3/07

Applicants' arguments with respect to the rejection against claims 1-5 are persuasive. The rejection is thus withdrawn.

In re claim 37, applicants asserted that "neither Friedmann et al.'s description of of annealing with a laser (column 13, line 29) nor the rest of Friedmann et al. teaches or suggests exposing the substrate to pulses of electromagnetic radiation."

In response to the foregoing arguments, Friedmann et al. do expressly teach depositing an amorphous carbon layer 30 (i.e. a-tC film) on a substrate (col. 9, lines 55-59) and exposing the substrate to pulses of electromagnetic radiation (i.e. performing an annealing via laser or electron beam, col. 9, lines 59-61 and col. 13, lines 26-33) under conditions sufficient to heat the amorphous carbon layer to a temperature of at least about 300 C (i.e. annealing at 600 C, col. 9, lines 59-60 or annealing at no more than approximately 600 C, col. 13, lines 26-27).

In re claims 42 and 43, applicants argued that Hayashi's teachings cannot remedy the deficiency of Friedmann et al. because Hayashi provides a lamp for roughening the amorphous carbon.

In response to the argument, it is submitted that Hayashi uses the lamp not only to roughen the amorphous carbon but also to heat up the amorphous carbon (col. 4, lines 49-50). The annealing in Friedmann et al. is also an act of heating. The teaching of Hayashi is provided to show that lamp heating is an art-recognized equivalence to the laser heating as the source electromagnetic radiation because Hayashi teaches using either laser light or high power lamp to heat the amorphous carbon (col. 4, lines 49-50). In addition, claims 42 and 43 recite "exposing the substrate to electromagnetic radiation ..... to heat the layer to a temperature of at least about 300 C....." In other word, the purpose of exposing the amorphous carbon to electromagnetic radiation is to heat the amorphous carbon layer to a temperature of at least about 300 C. Since the combination of Friedmann et al. and Hayashi teach using lamp as the source of electromagnetic radiation for heating the amorphous carbon layer, thus, the rejection against claims 42 and 43, as set forth in the previous Office action, is deemed proper.

HSIEN-MING LEE  
PRIMARY EXAMINER

2/23/07